

# A Mathematical Look at the Assassination of President John F. Kennedy – Part 2

Jeffery P. Hoyle  
37 Farnham Street  
Fall River, MA 02720

(Continued from "People and the PURSUIT of Truth" for October 1976, page 6.)

## The Testimony of the Film

Recall that FBI expert Robert Frazier test-fired the rifle "to determine the maximum speed at which it could be fired." /10/ To work the bolt and fire three shots (aiming time excluded) took a minimum of 4.6 seconds. The Commission divided by two and determined that the minimum time to work the bolt and fire was 2.3 seconds. With the Zapruder film running at 18.3 frames per second, the time span between the shots on film should be 42.09 frames. /11/

A problem arises with anyone's viewing of the film, for Connally appears to be reacting too soon for his reaction to have been a separate shot from Oswald's bolt action rifle. When viewing the film for Life Magazine in 1966 Connally picked Z-234 as the hit frame. /12/ This is approximately 1.3 seconds after the Kennedy hit. Photo-optical expert Robert Groden picks Z-237 as the hit frame. /13/ Connally's chest surgeon, Dr. Robert Shaw, picked Z-236 as the point of impact "give or take 1 or 2 frames." /14/ Dr. Charles Gregory picked Z-234 to 236, and Josiah Thompson, author of "Six Seconds in Dallas," picked Z-236. /15/

It seems clear that no one sees Connally as wounded until after Z-230, far too soon for another shot from Oswald's gun. It is also obvious that Connally can be seen holding his stetson in his right hand, which was supposedly shattered by the bullet. Now either Connally was struck by the same bullet which wounded the President and is suffering a delayed reaction, or there was another gunman firing in Dealey Plaza that day. It is as simple as that; Oswald could not have fired twice in less than 2.3 seconds.

Whether or not Connally is suffering from a delayed reaction is probably for medical experts to decide. The Commission itself was split on the issue with Senators Russell and Cooper and Representative Boggs doubtful of the "single bullet theory" and Rep. Ford, Mr. Dulles and Mr. McCloy in support of it. /16/ But there are still problems with it from a mathematical standpoint.

## The Vertical Angles

Commission Exhibit 385 is a "schematic drawing showing side view of entry and exit wounds to the neck area of President Kennedy." Commission Exhibit 689 is a drawing showing the path of a projectile as indicated by examination of the wounds of Governor Connally.

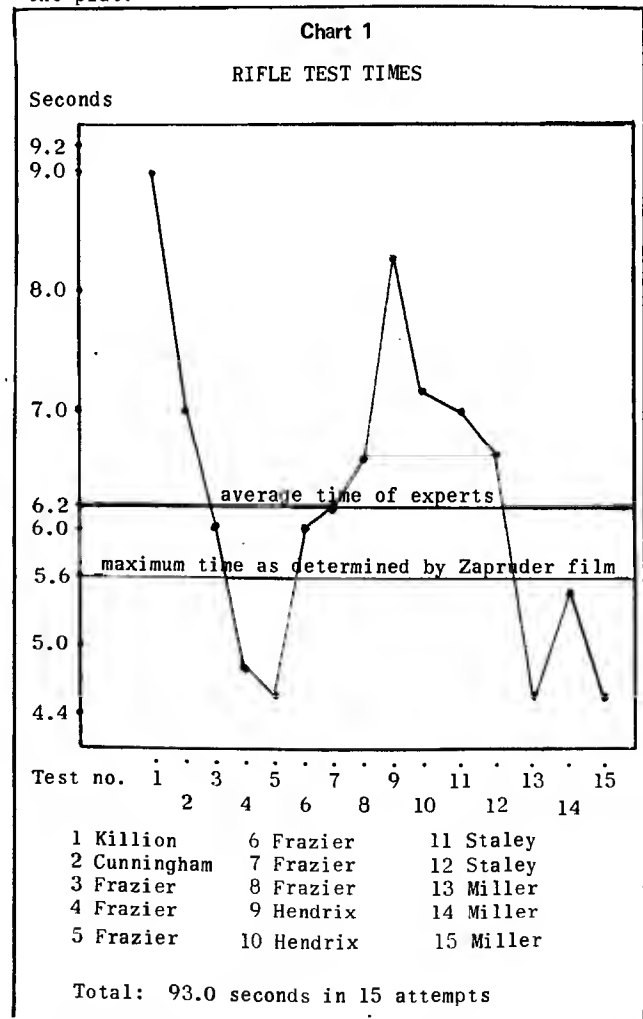
Connally's wound was measured as at a trajectory of  $27^{\circ}$ , whereas Kennedy's wound appears to be a very flat angle (approximate measure of  $10^{\circ}$ ). To

the naked eye, these flightpaths simply do not line up. But let us allow for the time being that these are simply rough drawings.

## The Lateral Angles

In 1969, Robert B. Cutler, an architect, tested the flightpath of the single bullet theory. His tools were (1) a surveyor's plat of Dealey Plaza showing the relationship of the Texas S.B. Depository to Elm St. and (2) a dimensioned drawing of the limousine for proper positioning of the President and Governor.

Mr. Cutler took great pains to get his measures correct, and travelled to Dallas to get a print of the plat.



Using individual frames of the Z-film (from Life Magazine, Paris Match, and the Warren Exhibits) he was able to estimate the position of the men in the car. (It should be noted that there were over 20 photographers in the Plaza that day located on both sides of the motorcade.)

A travel line was drawn tangent to the curved route. The intersection of the travel line with the flightpath provided the basis for measuring the angles. (Afterward the flightpath was transferred to the detail of the limousine and the position of the men.)

The Commission determined that JFK was struck between Z-210 and Z-225. Cutler tested five Z-frames Z-186, Z-198, Z-210, Z-225, and Z-234. The angle from the earliest frame to the last was 17° to 7° from right to left. The average measure of the angle was 11°, and in each of the tests the flightpath failed to provide for a wound on Connally's right side, near his right arm pit. As a matter of fact all the flightpaths passed on Connally's left side or missed him altogether. /17/

#### Summary and Conclusions

What can one conclude from the information presented in this article?

1. We can conclude from the rifle tests that, on the average, experts cannot do what Oswald allegedly did.
2. We can conclude from the stair race that if Oswald was the assassin he may well have arrived on the second floor after Officer Baker.
3. We can conclude from the work of Robert Cutler that the single bullet theory is mathematically improbable to say the least.

#### Footnotes

- /1/ Warren, Earl et al, Hearings Before the President's Commission on the Assassination of President Kennedy, U.S. Government Printing Office, 1964, Volume V, p. 160
- /2/ Warren, Earl et al, Report of the President's Commission on the Assassination of President Kennedy, U.S. Government Printing Office, 1964, p. 105
- /3/ Epstein, Edward J., Inquest, Viking Press, 1966, p. 142
- /4/ Epstein, Ibid, p. 143
- /5/ Ibid, p. 143
- /6/ White, Stephen, Should We Now Believe the Warren Report?, MacMillan Company, 1968, p. 225
- /7/ Thompson, Josiah, Six Seconds in Dallas, Bernard Geis Associates, 1967, p. 294
- /8/ Roffman, Howard, Presumed Guilty, Associated University Press, 1975, p. 63-4
- /9/ Cutler, Robert, The Umbrella Man, Betts and Mirror Press, Danvers Ma, 1975, p. 45, 98
- /10/ Warren Report, p. 182
- /11/ Welsh, David, and David Lifton, "The Case for Three Assassins," Ramparts, January 1967, p. 78
- /12/ "A Matter of Reasonable Doubt," Life, November 25, 1966
- /13/ Model, F. Peter, and Robert J. Groden, JFK: The Case for Conspiracy, Manor Books, Inc. 1976, p. 147
- /14/ Warren Report, Hearings, Volume IV, p. 128
- /15/ Thompson, op. cit., p. 71
- /16/ Ibid, p. 210
- /17/ Cutler, op. cit., p. 37-44

ligence Agency; the letter said that a search of the Agency's records had failed to locate any document called "Click Beetle."

5. From: Richard E. Sprague, October 31, 1976  
Hartsdale, NY 10530

I saw the book by Hugh McDonald, "a pointment in Dallas," before it was printed in 1975. He brought it to the office of the Committee to Investigate Assassinations in Washington about 1973, seeking help to get it published. There were several copies of the manuscript there for several months. A number of the researchers examined it, including Bud Fensterwald, Bob Smith, Paris Flammonde, Fletcher Prouty, myself, and others.

In the original book McDonald said Saul fired from the second floor of the County Records Building in Dealey Plaza. The trees, walls, etc., in Dealey Plaza make that impossible. In the final book he does not mention the floor of the County Records Building from which Saul is supposed to have fired. In the original book, he says he met Saul in Spain. In the final book he says he met Saul in London. In the original book, he said he made Saul confess by holding a pistol to his head. In the final book there is nothing like that. In the original book he says he tracked down Saul by the use of photographs, and there is no mention of the CIA agent Kimsey. In the book as published, the tracking down by photographs is not mentioned and Kimsey plays a leading role.

These changes (and probably others) cast considerable doubt for me on Hugh McDonald's reporting. □

#### Kostman and Williams - Continued from page 5

CIA assassination plots. The story of AM/Lash — the agent who, according to the new and more sophisticated "Castro did it" scenario, betrayed a plot in late 1963 to Castro and supposedly triggered Castro's act of retaliation against JFK — was taken straight from the 1967 Inspector General's Report.

#### The "Castro Did It" Theory is False

The "Castro did it" story is false. It ignores the evidence about the relationship between Kennedy and Castro in 1963. Kennedy was cracking down on CIA-Cuban exile raids, Kennedy was at the same time actively negotiating a reconciliation with Castro. It ignores the distribution by Lee Harvey Oswald of the "Fair Play for Cuba" leaflets in New Orleans. And more besides.

And so, the "Castro did it" theory is not only false, but also represents a new official cover-up story, a successor to the "lone-assassin" cover-up. In 1976, as in 1967, it is a diversion, designed to derail the real investigation.

#### References

The Final Report of the Select Committee to Study Governmental Operations with Respect to Intelligence Activities, U.S. Senate; Vol. V, "The Investigation of the Assassination of President John Kennedy: Performance of the Intelligence Agencies."

"Washington Post," March 7, 1976.

"Washington Post," August 22, 1976.

"New York Times," August 9, 10, 14, 1974.

"Detroit News," June 27, 1976.

"Las Vegas Sun," March 1, 1976. □